

WHAT IS CLAIMED IS:

Claim 1. A method of performing a financial transaction over a network comprising the steps of:

5 generating an identifier corresponding to a credit card number at a financial transaction server;
sending said identifier to a point-of-sale server;
receiving said identifier at said financial transaction server from said point-of-sale server when a financial transaction is undertaken;
retrieving said credit card number corresponding with said received identifier;
10 and
sending said retrieved credit card number to a financial server.

Claim 2. The method of claim 1, further comprising the steps of:

generating a second identifier corresponding to said credit card number; and
sending said second identifier to said point-of-sale server, such that a subsequent
15 financial transaction will use said second identifier.

Claim 3. The method of claim 1, wherein said financial transaction server includes a process-based security system.

Claim 4. The method of claim 3, wherein said process-based security system includes an operating system using process-based security.

20 Claim 5. The method of claim 4, wherein said operating system intercepts a file call to read a file and determines an authorization of the file call before permitting the file to be read.

Claim 6. The method of claim 5, wherein said authorization is determined by accessing a resource access table.

5 Claim 7. The method of claim 6, wherein said resource access table indicates access authorization for a process, such that a process is unable to access a file unless the resource access table indicates authorization for that file.

Claim 8. The method of claim 1, further comprising the step of authenticating the point-of-sale server at the financial transaction server and loading a resource access table associated with the authenticated point-of-sale server.

10 Claim 9. The method of claim 6, further comprising the step of authenticating the point-of-sale server at the financial transaction server and loading a resource access table associated with the authenticated point-of-sale server.

Claim 10. The method of claim 9, wherein said resource access table indicates access authorization for a process, such that a process is unable to access a file unless the resource access table indicates authorization for that file.

Claim 11. A transaction server for performing a financial transaction over a network comprising:

a processor for executing processes;

a memory connected to said process;

5 a network connection for connecting the processor to a point-of-sale server and a financial server;

wherein said processor generates an identifier to correspond with a credit card number and stores the identifier and corresponding credit card number in memory, such that when a point-of-sale server transmits said identifier to said transaction server, said
10 processor retrieves the credit card number corresponding to said identifier and transmits said credit card number to said financial server.

Claim 12. The transaction server of claim 11, wherein said processor generates a second identifier corresponding to said credit card number; and sends said second identifier to said point-of-sale server, such that a subsequent financial transaction will
15 use said second identifier.

Claim 13. The transaction server of claim 11, wherein said transaction server includes a process-based security system.

Claim 14. The transaction server of claim 13, wherein said process-based security system includes an operating system using process-based security.

20 Claim 15. The transaction server of claim 14, wherein said operating system intercepts a file call to read a file and determines an authorization of the file call before permitting the file to be read.

Claim 16. The transaction server of claim 15, wherein said authorization is determined by accessing a resource access table.

5 Claim 17. The transaction server of claim 16, wherein said resource access table indicates access authorization for a process, such that a process is unable to access a file unless the resource access table indicates authorization for that file.

Claim 18. The transaction server of claim 11, further comprising the step of authenticating the point-of-sale server at the financial transaction server and loading a resource access table associated with the authenticated point-of-sale server.

10 Claim 19. The transaction server of claim 16 wherein the point-of-sale server is authenticated by the transaction server and wherein said transaction server loads a resource access table associated with the authenticated point-of-sale server.

Claim 20. The transaction server of claim 19, wherein said resource access table indicates access authorization for a process, such that a process is unable to access a file unless the resource access table indicates authorization for that file.